ENVIRONMENTAL PUBLIC HEALTH TRACKING
ADVISORY GROUP MEETING
July 15, 2004
The next Advisory Group meeting will be held September 9 in Butte, MT, in conjunction with the September MPHA conference.

Attendees:
Sib Clack, DPHHS/FCHB
Dan Dennehy, Butte-Silver Bow Health Dept.
Tom Ellerhoff, MT DEQ
Gail Gutsche, Montana State Legislator
Dana Headapohl, MD, St. Patrick's, Missoula
Roman Hendrickson, MD, Sheridan
Denise Higgins, DPHHS/MBOMS
Jim Hill, MT NRIS
Wade Hill, MSU College of Nursing
Kammy Johnson, DPHHS/Epidemiologist
Marjean Magraw, DPHHS/EPHT
Judy Murphy, MT DLI
Curtis Noonan, UM CEHS
Robert Shepard, MD, American Cancer Society Rep.
Jeanne Seifert, Dawson County Health Dept.
Michael Spence, MD, DPHHS/State Medical Officer
Diana Vanek, UM CEHS
Wilda McGraw, MT DPHHS

Additional Attendees:
Chris Deveny, EPHT Community Consultant
Leah Dreyer, DPHHS/EPHT
Rosina Everitte, DPHHS/FCHB
John Kilpatrick, USGS
Mike Leary, DPHHS/
Diane Papineau, NRIS
Bruce Swartz

The meeting opened with a welcome by Marjean Magraw, EPHT Project Coordinator. She outlined the purpose of the meeting: first, to give an update on the progress of the EPHT project; to hear reports from contractors Wade Hill of the MSU College of Nursing, and Curtis Noonan of the UM Center for Environmental Health Sciences; to discuss strategic planning for EPHT's next funding cycle; to briefly review criteria for selecting priority health concerns and clarify some terms used in environmental health; and lastly, to plan for the next Advisory Group meeting, which will take place in Butte in conjunction with the MPHA conference in September.

EPHT PROJECT UPDATE

After group introductions, Dr. Mike Spence gave brief updates on his recent trip to Atlanta, on possible legislation concerning methamphetamine contamination in the environment, and on the PCB contamination of Lewistown hatcheries.

Atlanta meeting

Dr. Spence recently traveled to Atlanta to meet with other representatives of EPHT grantee sites to discuss strategic planning for the future of EPHT projects. Notably, Dr. Henry Faulk spoke of CDC's support for not only continuing with the Tracking projects, but also expanding it to new sites; more funding will be sought to further the growth of Tracking projects. In Atlanta, Mike presented on Montana's EPHT project activities as a Part A state (planning and capacity building); Wisconsin's tracking project presented as a Part B state. Partner agencies also were present at the meeting, representing ATSDR, EPA, NGOs, and other federal agencies. The meeting was overall very positive and upbeat, and Mike noted that in comparison with other Tracking sites, Montana is not lagging behind, but is in fact setting benchmarks for the direction of other projects to go. He commended the Advisory Group on their hard work and

contributions in making Montana's EPHT project a success, especially in the eyes of those funding the project.

Methamphetamine Contamination in the Environment: Possible Legislation
At the next legislative session, a bill will possibly be proposed concerning environmental cleanup of methamphetamine-contaminated properties. Representatives of DPHHS and DEQ will be attending hearings on this issue. Dr. Spence noted that there is well-documented medical evidence of potential physical and mental harm to adults and children in a house where meth is being cooked, but after cooking is over and contaminants have been removed, there is no medical evidence of harm to anyone entering the property. Exactly *how much* clean-up is necessary, who should be responsible for clean-up, and how it will be paid for are the issues this bill will address. The hearings will be held by an environmental oversight committee, and the presentations they hear will help determine legislation on this issue.

PCB Contamination in Lewistown Hatcheries
Dr. Spence gave preliminary information regarding the recent news of PCB contamination in Lewistown hatcheries. PCBs were found in the sediment of the Lewistown hatcheries, prompting Fish, Wildlife and Parks to test the fish for PCB contamination. FWP found relatively high PCB levels in the fish, as much as 200 times the acceptable level of contamination. Many of these fish have been used to stock Montana reservoirs and lakes throughout the past several years. The contamination originates from a paint containing PCBs made by the Monsanto Chemical Company in the 1960's and 70's; this paint was used to paint the raceways of the Lewistown hatchery, and over the years has flaked off, contaminating the fish. The last time PCB samples were collected in Montana was in 1994, so FWP is currently in the process of sampling and analyzing the fish.

ATSDR will be conducting an investigation in the coming months to determine if there has been any contamination in humans in the area, if there is a health hazard or not, and what can be determined from that information. So far, there have been no claims of adverse health effects, but area residents who believe that contamination in Big Spring Creek has lowered their property values are bringing a class-action lawsuit against the State of Montana and Monsanto. Dr. Spence will continue to update the Advisory Group on this issue as more information becomes available.

Progress Report for Montana's EPHT
Marjean began her update of the EPHT project by clarifying that the CDC's vision of Environmental Public Health Tracking, which is "to protect communities from adverse health effects through the integration of public health and environmental information."

- **Information Gathering**

Montana's EPHT project is in the process of gathering information by various methods. The data linkage aspect is being examined through a comprehensive database inventory, meeting with program managers, and creating a "big picture" of how data needs to flow to improve surveillance and compile information. An information technology infrastructure review has been done with Northrop Grumman; the final draft of the final report has been completed. The EPHT project has been working with IT officials and other DPHHS programs to move ahead with plans for coordinating systems. Wade Hill of MSU College of Nursing is nearing completion of his survey of Montana stakeholders, and will present his findings to date later in the meeting. Chris Deveny, EPHT Consultant for the Community Needs Assessments, has been working with county and tribal health officials as they gather information from their communities on

environmental health concerns. Together, all aspects of this information-gathering stage will be compiled into a written needs assessment, with the goal of being completed by December. A written needs assessment would be a useful as a summary of achievements, and for use by legislators.

- **Outreach**

The EPHT project, along with Chris Deveny, has been meeting with data managers at DPHHS and DEQ to look at relevant databases to be included in EPHT's inventory. The project website is continuously being added to, a new brochure and poster have been developed, and a newsletter will hopefully be sent out this August. Dr. Spence has presented at many association meetings and conferences, and has more presentations scheduled for this fall. There has also been collaboration on interagency issues, such as mercury and PCBs with Fish, Wildlife and Parks, to coordinate efforts and work on mapping data to examine trends.

The EPHT project will be bringing Drs. Catherine Shea and Mark Anderson to speak on environmental health issues at the September 8-10 MPHA Conference in Butte. Dr. Shea will present on the interrelationship of human health and environmental integrity, as well as the efficacy of environmental laws protecting children. Dr. Anderson will speak about children's environmental health in the Rocky Mountain region. Dr. Spence will speak about Libby, and Dr. Eichner, Montana's only pediatric pulmonologist, will speak about asthma.

Marjean explained that the project would also like to conduct physician outreach, with presentations at grand rounds sessions addressing occupational diseases, environmental diseases, tracking, and resources. Dana Headapohl has expressed interest in participating, and Marjean invited the participation of any other physicians who would like to help develop a curriculum. The outreach would take place at several of the larger hospitals around Montana, with the potential for CEUs (Continuing Education Units) for the physicians who attend the sessions. Dr. Hendrickson noted that making presentations available in a web-based format would be beneficial for those limited by distance.

- **Next Steps**

Continue outreach to providers and the community.
Complete the needs assessment
Clarify the focus of the EPHT project.
Develop a strategic plan for 2005, to determine the direction, resources, and priorities of EPHT.

<u>WADE HILL, MSU COLLEGE OF NURSING</u>: Progress report on environmental health surveys of local public health staff, county commissioners, extension agents and advocacy groups.

Wade Hill, of the MSU College of Nursing, has been working on conducting a needs assessment for public health nurses, sanitarians, health officers, county commissioners, county extension agents, and non-governmental organizations to determine:

- Gaps and trends in the utilization of environmental health (EH) information at the county level
- Knowledge and use of EH databases
- Perceptions of priority EH conditions, exposures, and hazards
- Citizen and local provider utilization of county health resources for addressing EH concerns

The survey is one of four efforts to understand needs in Montana with EPHT

- Citizen perceptions/needs (BRFSS additions)
- Public health staff, County Commissioners, County Extension Agents, NGO's (MSU SON Survey)
- Community-based needs assessments (9 county and 2 tribal sites)
- Input from EPHT Advisory Group

Project Schedule

The survey project began one year ago, working on survey materials and methods. Survey implementation has been completed excepting the non-governmental organizations. Left to complete are data entry and survey implementation for the NGOs. Descriptive analysis of findings is about 60% complete based on the first five groups, and will be finished by mid-August. Summarization report is due on September 1.

Survey Methods

- Multi-Mode: Paper/Pencil & Web-based
- Dillman Method to optimize response
    - Initial invitation letter (no survey), explaining Environmental Public Health Tracking, and why this survey was being conducted.
    - Invitation letter with survey (or link and password, if invitation sent by email)
    - Reminder
    - Second letter with survey (Paper/Pencil for all populations)

Response Rates

Response rates have been overall very good. For public health nurses, sanitarians, public health officers, county commissioners and county extension agents, response rates were 60% or above, the lowest response rate being with health officers. Responses are not in yet for NGOs, but Wade expects lower response rates, due to the heterogeneity of the groups. With the Dillman survey method, response rates are expected to be between 50 and 80 percent, and right now, excluding NGOs, the response rate is at about 72%.

Prototype Results: Public Health Nurses

Wade provided an example of preliminary survey results, based on responses from Public Health Nurses.

- Data use
    - Most: MT BRFSS, MT Vital Statistics-Birth, MT Fetal, Infant, and Child Mortality
    - Least: USGS Water Database, National Toxics Inventory Database, Superfund Information Systems, Toxic Release Inventory Explorer
- Barriers
    - "Little or no time to consider environmental health concerns in clinical practice."
    - "Clients and families have little interest in understanding how the environment can affect their health."
- Facilitators
    - "Free or inexpensive CE programs offered over distance learning."
    - "Having internet or other resources available in workplace."
- Priority EH Exposures: ETS (Environmental Tobacco Smoke) in homes with children, drinking water contamination, toxic contaminates in foods.
- Priority Health Effects: Reproductive outcomes, respiratory disease, disease outbreaks associated with food/water, cancer.

- Requests for EH information: basic information on EH issues, information on health effects of environmental exposures.
- Who requests information: 40% members of community, 23% HC workers in own organization, 22% HC workers outside of own organization, less than 8% from media, advocacy groups, or policy makers.

CURTIS NOONAN, UNIVERSITY OF MONTANA Center for Environmental Health Sciences (CEHS): update on pilot project to link air quality data with health effects data from hospitals and clinics in a 3-county area.

Curtis Noonan, PhD, of the Center for Environmental Health Sciences at UM began by giving some background information on asthma. National survey data suggests that asthma prevalence has been increasing in recent decades. The Montana Behavior Risk Factor Surveillance Survey (BRFSS) suggests that almost 9% of Montanans have asthma, compared to 7% nationally. Among asthmatics who reported having an attack within the past 12 months, some reported also having an emergency room visit or an urgent doctor's visit for an attack.

Numerous studies have shown increased levels of particulate matter (PM) associated with increases in severe asthma attacks, hospitalizations for asthma, reporting of asthma symptoms, and usage of asthma medication. Recently, there has also been discussion of PM and cardiovascular disease, with increased levels of PM associated with cardiovascular mortality and hospitalizations for cardiovascular diseases. Even small increases in risk for cardiovascular disease result in potentially huge effects on the public health population. Particulate matter is the environmental agent focused on in this project. PM includes various chemical mixtures, hydrocarbons, dust, acid, and aerosols. Size and concentration of PM are important characteristics *vis a vis* health, and in this pilot project, PM 2.5 was focused on.

The **objective** of the pilot project is to capture electronically available data on morbidity, capture historical environmental data on particulate matter, and to evaluate patterns in the levels of particulate matter and health outcome data over time.

Hypothesis

1) PM 2.5 levels are associated with an increase in hospital or clinical visits for asthma.
2) PM 2.5 levels are associated with an increase in hospital or clinical visits for cardiovascular disease.

Study Areas

Lincoln County, Lake County, and Missoula County. Due to population distribution, residential zip codes were used rather than whole counties.

Clinics and Hospitals in Study Areas

5 hospitals: St. John's in Libby; St. Joseph's and St. Luke's in Lake County; St. Patrick's and Community in Missoula.
Clinics/Other: 15-plus clinics in all three areas; Tribal and County Health Departments.

Parameters for eligible patient visit:

- Visit occurred between 1/1/2000 and 12/31/2003
- Visit for one of the following general outcomes of conditions: respiratory disease, cardiovascular disease, and digestive disease (should be no association with PM).

Human Subjects/ HIPAA Issues

- IRB approvals from UM; joint IRB for St. Patrick's and Community Hospitals.
- Collected only a "limited" data set, allowable under HIPAA rules for research puposes.
- Data use agreements established with health care providers.

Collected Variables
Admission and discharge dates, ICD codes, billing, disposition, smoking status, city/state/zip, insurance, gender, race/ethnicity.

Database Design
- MySQL backend with DNS driver for ACCESS.
- ACCESS front end.
- Consolidate different data formats into one for analysis.

Health Data Collected
Data has been collected from three hospitals and three clinics. St. Patrick's and St. Joseph's have four years of data; all others have only about 1 and a half years of data.

PM and Meteorological Data
Data collected from the three areas.

Preliminary Data
- Missoula: using monthly average data, there were two peaks in PM 2.5 levels, in the summers of 2000 and 2003, due to forest fires, and in the winter, due to inversions.
- Health Data from one hospital in Missoula: 14,000+ visits in a four-year period, with race data for only 31% of visits, and no smoking data information.

Asthma
Quite a bit of variability in hospital visits. There were spikes in asthma-related hospital visits in the summers of 2000 and 2003, which correlates with fire seasons.

Outstanding Issues
- Data is not available for all four years for some study areas.
- There is limited meteorological data for some study areas.
- Difficulties communicating with some health care providers.
- Some providers have incompatible data retrieval systems.
- Inconsistent reporting of race/ethnicity.

Diana Vanek, also of UM CEHS, is working with health care providers to access data. She noted that there had been some challenges, including obtaining the approval of administrators, losing momentum with Tribal Health Departments, and working within the limitations of providers. Overall, working with hospitals coders proved valuable, and providers in general were usually receptive to participating in the study.

Future Plans
- Complete data collection
- Assemble database
- Conduct analysis
- Host meeting for medical records specialists from the study area.

STRATEGIC PLANNING FOR EPHT

Marjean opened a discussion about strategic planning by the Advisory Group for the next cycle of the EPHT project. She presented options for how to best utilize time and resources to develop a strategic plan.

What is it, why should we do it?
- Have a product for the next funding cycle outlining all the data sources, with recommendations.
- How can Environmental Tracking best meet the goals of Montana? What are the priority issues, and where should we start?
- An overall picture is needed for integration.

Who would participate in the strategic planning process?

- Entire Advisory Group or a subgroup?
- A subgroup could work intensively and present work to the whole Advisory Group.
- What other players should be involved?
- A facilitator familiar with Environmental Public Health Tracking, who has been involved in similar strategic planning processes in other Tracking states, would be brought in to help lead the group.

When?

- The EPHT Needs Assessment will be done by December.
- A strategic plan should start by January, finishing by April.

How?

- Full one or two days of meetings.
- Several ½ days of meetings.

Where?

An off-site meeting place was suggested; most of the group, however, acknowledged that due to the Legislative session, it would be best to hold meetings in Helena.

Who would be interested in participating?

There has been interest expressed by several members, and everyone is welcome to participate as possible. If you are interested in participating, please let Marjean know. As a more concrete planning schedule develops, information on location and dates will be sent out.

REVIEW CRITERIA FOR PRIORITIZING ENVIRONMENTAL HEALTH ISSUES

At past meetings, the Advisory Group has been working on developing a tool for prioritizing environmental health issues in Montana. Revised worksheets addressing health concerns and priority issues were handed out. These tools will help determine priority concerns to focus on, and will be revisited at a later date.

DEFINITIONS

Marjean discussed terms used in defining Environmental Health and Environmental Public Health Tracking. "Environmental Health" can be very broad, including issues of food and consumer safety, health promotion, environmental hazards and regulation, and public air, water, and food supplies. "Environmental Public Health Tracking" refers to the vision of PEW and CDC, of developing a surveillance system for understanding and tracking hazards.

Marjean explained that Tracking is a very specific piece of Environmental Health, and in the future, definitions used in the EPHT project may need to be refined, for the sake of clarity with next year's Community Needs Assessment Sites.

NEXT STEPS

The next Advisory Group meeting will be held on Thursday, September 9th, in conjunction with the MPHA Conference in Butte. A noon meeting is planned, and location information will be sent out soon.

Marjean thanked the group, and the meeting adjourned at 11:50 a.m.